

ABSTRACT

Hashing and pattern matching are used in an information processing system to process incoming messages from a network such as an Ethernet-based network. Using hashing and pattern matching increases the efficiency of message acceptance and rejection without increasing software-based processor tasks. A hash function and a pattern matching function are performed on a message received by an information processing system, and the message is selectively accepted based on at least one of a hash result and a pattern matching result. The incoming message can be searched for the existence of patterns and the absence of the patterns. The incoming message can be searched for the existence of multiple patterns. The results of pattern matching can be used not only for acceptance and rejection of messages, but also for other post-receipt tasks such as selective storage of incoming messages according to identified relative priorities or absolute criticality of messages having particular pattern matches.